

EXPRESSION OF AN ATRIAL G-PROTEIN-ACTIVATED POTASSIUM (KG)
CHANNEL IN XENOPUS OOCYTES

Abstract of the Invention

5 This invention provides isolated nucleic acid molecules
which encode inward rectifier, G-protein activated,
mammalian, potassium KGA channel. This invention also
provides a nucleic acid molecule of at least 15 nucleotides
10 capable of specifically hybridizing with the above nucleic
acid molecule. This invention further provides a vector
comprising the isolated nucleic acid molecules which encode
inward rectifier, G-protein activated, mammalian, potassium
KGA channel. This invention provides a host vector system
for the production of a polypeptide having the biological
15 activity of KGA channel which comprises the above vector in
a suitable host. This invention also provides a method for
isolating from a sample a nucleic acid molecule encoding an
inward rectifier, G-protein activated, potassium channel in
a sample which comprises: (a) isolating the nucleic acids from
20 the sample; (b) contacting the isolated nucleic acids with
the molecule of at least 15 nucleotides capable of
specifically hybridizing with the above nucleic acid
molecule which encode inward rectifier, G-protein activated,
mammalian, potassium KGA channel under the conditions
25 permitting complex formation between the nucleic acid
molecule encoding an inward rectifier, G-protein activated,
potassium channel and the nucleic acid molecule of at least
15 nucleotides capable of specifically hybridizing with the
above nucleic acid molecule which encode inward rectifier,
30 G-protein activated, mammalian, potassium KGA channel; (c)
isolating the complex formed; and (d) separating the nucleic
acid molecule encoding an inward rectifier, G-protein
activated, potassium channel from the complex, thereby
isolating the nucleic acid molecule encoding an inward
35 rectifier, G-protein activated, potassium channel.